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7265 7590 10/29/2009  
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EXAMINER

O HERN, BRENT T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/29/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/534,950 | <b>Applicant(s)</b><br>SAITO ET AL. |  |
|                              | <b>Examiner</b><br>Brent T. O'Hern   | <b>Art Unit</b><br>1794             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claims***

1. Claims 1-2, 5 and 7-9 are pending.

## **WITHDRAWN OBJECTIONS/REJECTIONS**

2. All rejections of record in the Office action mailed 5/27/2009 have been withdrawn due to Applicant's amendments in the Paper filed 9/18/2009.

## **NEW REJECTIONS**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1-2, 5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang, *The production of Starch modified by alkenyl succinic anhydrides and its use in food industry* (2000), Cain et al. (US 5,756,143) and Hamm et al. (US 2003/0203096).

Regarding claims 1, 5 and 8-9, Oles ('451) teaches an acid emulsified semi-solid mayonnaise-like food (*See col. 2, ll. 60-69 and col. 1, ll. 62-68, including acetic acid/vinegar.*) comprising starch (*See col. 2, l. 67.*), thickening polysaccharide with a content of 0.3 to 0.7% by mass (*See col. 2, l. 66, where the polysaccharide gums content is from 0 to 15%.*), edible fat and oil having a content of 50 to 75% by mass (*See col. 2, ll. 60-69 and col. 3, ll. 56-60 where the oil content is from 0 to 60%. The corn and soy oils are known to a person having ordinary skill in the art to contain both oil and fat triglyceride molecules containing chains such as esterified chains of stearic*

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*acid, C18:0.)* wherein the content of protein is less than 0.5% by mass (*See col. 2, ll. 60-69 where the egg yolks and milk solids, possible sources of protein, are not required as they include values of zero. Furthermore, the claims include values of zero, thus, non limiting.*), however, fails to expressly disclose an esterified compound composed of a potato starch or a hydrolysate thereof and an alkenylsuccinic acid and an esterified compound composed of waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid where the content of the esterified compounds is 1.2 to 2.2% by mass, the mass ratio of the esterified compound to the thickening polysaccharide is from 2:1 to 10:1 per claim 5, and the alkenylsuccinic acid is octenylsuccinic acid.

However, Qiang teaches using an octenyl succinate starch which is an esterified compound comprising a starch or hydrolysate and an alkenylsuccinic acid at 1% and xanthan gum at 0.05% in salad dressings for the purpose of improving the dispersion of the substances in the product, emulsion stability, appearance and taste (*See entire document.*). Regarding the mass ratio per claim 5 it would have been obvious to one having ordinary skill in the art to adjust the amount of esterified compound and polysaccharide, in combination the corresponding mixing parameters, known in the art to the above values so as to provide the desired mass ratio for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Cain ('143) teaches the gum used in a dressing being xanthum gum at 0.4 wt % for the purpose of providing an emulsified dressing (*See col. 9, ll. 1-24.*).

Hamm ('096) teaches corn starch, waxy corn starch and potato starch as being alternative substitutes for mayonnaise-like sauce bases (*See para. 32.*) for the purpose of providing a thickened, stable sauce base (*See para. 32.*).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to use the above starch and gum as taught by Qiang, Cain ('143) and Hamm ('096) in Oles ('451) and the above ratios in order to provide a thickened food substance having improved stability, appearance and taste.

Regarding claim 2, Oles ('451) teaches the acid emulsified mayonnaise-like food further comprising an edible vinegar, salt and seasoning (*See col. 2, ll. 60-69 and col. 4, ll. 61-64.*).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang, *The production of Starch modified by alkenyl succinic anhydrides and its use in food industry* (2000), Cain et al. (US 5,756,143), Hamm et al. (US 2003/0203096) and Chen et al., *Preparation of Starch Sodium Alkenyl Succinate* (2000).

Oles ('451), Qiang, Cain ('143) and Hamm ('096) teach the food product discussed above, however, fail to expressly disclose wherein the degree of substitution of the ester groups are from 0.005 to 0.020.

However, Chen teaches using cornstarch to prepare alkenyl succinate starch with a degree of substitution of ester groups of 0.018, 0.017, 0.007, etc. for the purpose of providing a thickened food (*See entire document.*). Furthermore, as discussed

above, corn starch, waxy corn starch and potato starch have similar compositions and structures and are substantially interchangeable.

Therefore, it would have been obvious to use a starch with the substitution as taught by Chen in Oles ('451) in order to provide a thickened food.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

6. In response to Applicant's arguments (*See pp. 5-8, of Applicant's Paper filed 9/18/2009.*) and the Declaration of Akemi SATO filed 9/18/2009 regarding the new limitations, specifically the semi-solid limitations, it is noted that these new limitations are discussed above. Much of Applicant's arguments are directed to the new limitations.

7. In response to Applicant's arguments (*See p. 5, para. 2, of Applicant's Paper filed 9/18/2009.*) regarding what Oles ('451) does not teach, it is noted that the Examiner does not disagree and this is why the secondary references are cited.

8. The declaration under 37 CFR 1.132 filed by Akemi SATO has been carefully reviewed, however, it is insufficient to overcome the rejection of claims 1-2, 5 and 7-9 based upon Qiang. Qiang is not a primary reference but rather a secondary reference and the Examiner does not suggest modifying Qiang. Qiang is cited for teaching the combination of alkenylsuccinic acid and xanthan gum (*See entire document.*).  
Oles ('451) composition is a semi-solid.

9. In response to Applicant's arguments (*See p. 7, para. 1, of Applicant's Paper filed 9/18/2009.*) that the alkenylsuccinic acid as taught by Qiang has no effect on maintaining viscosity, it is noted that the alkenylsuccinic acid as taught by Qiang is not

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added alone but rather in combination with xanthan gum and this combination improves the dispersion of the substances in the product, emulsion stability, appearance and taste (*See entire document.*).

**10.** In response to Applicant's arguments (*See p. 7, para. 2 to p. 8, para. 2, of Applicant's Paper filed 9/18/2009.*) that since Hamm ('096) does not teach modified corn starch it does not teach the starch as claimed, it is noted that said arguments are not commensurate in scope with the claims as the claims are not directed to a modified corn starch. As discussed above, Hamm ('096) teaches corn starch, waxy corn starch and potato starch as being alternative substitutes for mayonnaise-like sauce bases for the purpose of providing a thickened, stable sauce base (*See para. 32.*).

**11.** Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T. O'Hern/  
Examiner, Art Unit 1794  
October 26, 2009